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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,925	08/28/2006	Jordi Tormo I Blasco	5000-0189PUS1	4198

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

KLINKEL, KORTNEY L

ART UNIT	PAPER NUMBER
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1611

NOTIFICATION DATE	DELIVERY MODE
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11/28/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/590,925	Applicant(s) TORMO I BLASCO ET AL.	
	Examiner Kortney L. Klinkel	Art Unit 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/28/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims

Claims 1-12 are pending in the instant Office action.

Information Disclosure Statement

Acknowledgement is made of applicant's submitting an information disclosure statement on 8/28/2006. DE 1930540 was not in English and Applicants did not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. Therefore this document was not considered. With these exceptions, the submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Foreign Priority

Acknowledgement is made of applicant's foreign priority claims to German patent applications 102004012752.2, filed March 14, 2004. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-8 and 10-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Dependent claim 5-8 and 11-12 recite the limitation "applied simultaneously, that is jointly or separately, or in succession". Claim 5 is internally inconsistent because its parent claim, claim 1, indicates that compounds of the formula I and II are in admixture. A mixture does not allow for separate or successive application of ingredients contained therein. There is insufficient antecedent basis for this limitation in the claims.

Claim 10 provides for the use of the compounds I and II, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 10 provides for the use of the compounds I and II...for preparing a composition suitable for controlling harmful fungi, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 10 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pees et al. (WO 98/46607, as per Applicant's IDS) by itself or alternatively in view of Tateishi et al. (EP 0677246, as per Applicant's IDS).

Applicants claim a fungicidal mixture which comprises the triazolopyrimidine derivative of formula I and thiophanate-methyl of formula II in a synergistically effective amount.

Pees et al. teach triazolopyrimidine derivatives of formula I (instant formula I, see page 3, lines 5-15 and Example 2 on page 20 for preferred compound of instant claim 1) to have enhanced systemic activity and enhanced fungitoxicity against rice diseases and powdery mildews (page 7, lines 8-11), namely for the control of phytopathogenic fungi (*page 7 lines 13-19*). Pees teach the control of *Phytophthora infestans* (page 23 lines 18-19). Note particularly page 17, line 7 to page 19, line 2; especially page 17, line 19-22 states, "These mixtures of fungicides can have a broader spectrum of activity than the compound of general formula I [the triazolopyrimidine] alone. Furthermore, the

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other fungicide can have a synergistic effect on the fungicidal activities of the compound of general formula I.” Pees discloses thiophanate-methyl, (page 18, line 16) as one of the possible other fungicides that can show a synergistic effect with the triazolopyrimidine derivative of question.

Pees also teaches the use of the triazolopyrimidines as a fungicidal composition comprising the triazolopyrimidine derivative in the instant application and also said triazolopyrimidine alone or in admixture with multiple active ingredients (page 12, lines 3-6 and 9-10 respectively) further comprising a liquid or solid carrier (page 12, lines 19-21), this reads on instant claim 3. Pees also discloses the method of using the above mentioned fungicidal mixture to treat the fungi, soil, peat, plants, seeds etc. (page 19, lines 3-12) which reads on instant claims 4-12.

Pees also teaches that the dose of fungicidal composition ranges from 0.01 to 10 kg of active ingredient per hectare (page 15, line 12). This equates to a range of 10 to 10,000 g/ha. This range of dosage amounts overlaps with the range disclosed by Applicant in claims 7-8 and 11-12, as well as the amount applied in claim 9 to seeds. In the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art, a *prima facie* case of obviousness exists, see MPEP 2144.05. It would be within the purview of one of ordinary skill in the art to determine the necessary amounts of a particular fungicidal mixture necessary to exhibit maximum fungicidal effects in controlling harmful fungi at a particular locus of interest.

The teachings of Pees differ from the instant invention in that Pees does not explicitly teach the combination of the triazolopyrimidine with thiophanate-methyl, but

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rather suggests the possibility of this combination from a *finite* list. However, it would have been obvious to use thiophanate-methyl in combination with the instant triazolopyrimidine to one of ordinary skill in the art at the time of the instant invention with a reasonable expectation of success because thiophanate-methyl is listed with a finite number of identified, predictable solutions.

Additionally, Tateishi teaches the fungicidal properties of thiophanate-methyl as well as synergistic properties of thiophanate-methyl in combination with ipconazole, a well known fungicide (abstract, Table 2, claim 1). The composition can further comprise the fungicides thiuram, kasugamycin, captan, probenazole, thiflumizole, prochloraz, pefurazate, and copper agents (page 4, lines 36-37). Please note the obvious typographical error in Table 2. Thiophosphate methyl should read thiophanate-methyl, as thiophosphate methyl is not a substance, nor is it discussed anywhere else in the document. The synergistic fungicidal mixtures taught by Tateishi are effective against a broad range of filamentous fungi (Page 4, lines 4-6). Table 2 illustrates the synergistic effect of thiophanate-methyl in combination with ipconazole against *Gibberella fujikuroi*. Table II also teaches various dosage rates and ratios, the amounts of which are measured in ppm. Also the ratio of the two fungicides is taught to be in a weight ratio from 1:0.01 to 1:1000 or preferably from 1:0.1 to 1:100 (page 4, lines 12-13). These ratios fall within those claimed by applicants. It is within the capability of one of ordinary skill in the art to determine the necessary concentrations of a particular fungicide or fungicidal mixture necessary to exhibit maximum fungicidal effects in controlling harmful fungi.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the instant invention to combine the teachings of the two references to develop the fungicidal mixtures claimed in the instant application with a reasonable expectation for success. Pees teach that triazolopyrimidines are functional as fungicides and also show synergy when used in combination with other known fungicides. Likewise, Tateishi teach that tiophanate-methyl is a known fungicide and it is also known to show a synergistic effect in combination with other fungicides. "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Applicant's data in the specification has been considered. Because both Pees and Tateishi show synergistic effects with triazolopyrimidines and tiophanate-methyl respectively in combination with a large number of other known fungicides, there is a high expectation of synergy in the instant claimed combination. It could be reasonably argued that in most cases, additive or better than additive results should be expected for the combination of such fungicides to one of ordinary skill in the art. For the reason outlined above, claims 1-12 are deemed *prima facie* obvious in light of the teachings of the prior art and rejection under 35 U.S.C. § 103 is appropriate.

Conclusion

Claims 1-12 are rejected. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kortney Klinkel, whose telephone number is (571)270-5239. The examiner can normally be reached on Monday-Friday 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached at (571)272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KLK/

/Sharmila Gollamudi Landau/

Supervisory Patent Examiner, Art Unit 1611